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September 13, 1991

Mr. Lowell P. Braxton  
Associate Director, Mining  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Braxton:

We have delayed in responding to your letter because of several concerns with regard to the Escalante property. First and foremost is the letter from the Bureau of Water Pollution Control of January 31, 1991, which implies that issues relating to a permit to discharge to groundwater will need to be resolved before reclamation could proceed. Your letter of April 29 also suggested that issues surrounding a permit to discharge to groundwater would impact the reclamation plan and would need to be resolved. Since we are basing our reclamation plan on the belief that the tailings pond has not and will not cause a groundwater problem, we determined that we should again have our consultant review the attendant issues. The consultant has done that. We have sent a copy of the report to the Bureau of Water Pollution Control; enclosed is a copy of our letter to them, with a copy of the report. We remain convinced that there is a very low probability that the tailings pond will discharge to the groundwater, but if it did the impacts would be minor and not recognized for several thousand years.

With this letter we will attempt to address each of the points in your letters of April 29, and August 23, 1991. We believe that the above paragraph addresses the first paragraph in your August 23 letter.

#### Applicability of Rules

We continue to maintain our position that the existing reclamation plan and rules existing at the time are applicable, since the reclamation plan is not a new and amended proposal. However, we have agreed that we will prepare and implement a plan that addresses your concerns and the requirements of your current rules.

### **Reclamation Plan - Roads**

We will provide a statement as a revision or a supplement to the reclamation plan that provides for the road to be removed and reclaimed when reclamation of the site is complete. We have not decided how to best proceed on this point, since some form of road will be needed for the reclamation and post reclamation maintenance activity. We will address the issue at an appropriate time.

### **Reclamation Plan - Seeding**

We will utilize the seeding mix you have recommended in your April 29 letter, with the exception that alfalfa will be excluded because it is a deep rooting plant. We will also reserve the right to adjust the quantity of each amount of seed depending on seed availability and concurrence with the Department.

### **Reclamation - Seed Bed Preparation**

1. The placement of topsoil on the borrow areas will be dependent on the amount of topsoil in place originally. We do not intend to replace more than was originally present since that procedure would lead to a continuous salvage and replacement of topsoil unless an area could be found with excess topsoil. We will address the topsoiling of borrow areas when we identify the specific borrow areas.

2. We will be providing specific borrow area information following completion of the borrow area identification. We are aware of your timeframe of trying to resolve the issues prior to November 15, and we will attempt to complete the study in that time frame. Our consultants have been engaged to conduct the work, and are aware of the need to expedite the work.

We are also aware of the BLM's concerns which were addressed in both your April 29 and August 23 letters. We will try to focus our search for suitable materials on lands other than those under the management jurisdiction of the Bureau of Land Management. If no other sources of economically available clay are available, we will approach the BLM with appropriate requests to investigate lands under their jurisdiction.


We are not proposing to transplant shrubs. The reclamation plan discusses seeding of shrub species, including hand seeding.

3. We have proposed utilizing 18 inches of topsoil and subsoil over the clay layer in order to simulate the existing soil conditions in the area of the site. We will commit that a minimum of 18 inches will be utilized. The amount of topsoil and subsoil will be reevaluated depending on the sources of material that can be located. Since the sources near the tailings pond are less desirable from the viewpoint of the BLM, the haulage cost for the material will become a factor in consideration. We will evaluate the potential problems



which you have identified in your April 29 letter.

### **Reclamation Practices - Drainages, Erosion Control and Revegetation**

The runoff drainage ditches will be seeded and mulched as a part of the reclamation plan. Mulching will be appropriate to the situation.  MULCHING RATE?

The tailings pond area is currently fenced. The fence will be modified to meet the requirements to exclude livestock but allow passage of wildlife.

### **Reclamation Plan and Surety**

It is satisfactory to utilize the 65 acre number for calculation of the surety.

Our reclamation plan calls for a six inch clay cap of low permeability. The methodology of rendering the material relatively impermeable is dependent on the characteristics of the material itself. Therefore the methodology of compaction or placing wet and utilizing machinery traffic for compaction will be determined when the material source is identified, and will be discussed in our subsequent submittal.

The use of fertilizer in the revegetation of the tailings cap will be assessed at the time of reclamation, and will be determined based on testing. As noted in the reclamation plan, hay will be tilled into the topsoil and subsoil at a rate of two to three thousand pounds per acre.

The evaluation of whether or not mulch and fertilizer are necessary at borrow areas will be determined when the borrow areas are defined.

You have provided a calculation of a proposed bond. As we have discussed, we believe that it is appropriate to consider incremental bond release. We would anticipate that a schedule for the release be included in the approved reclamation plan. We believe that when the earth materials (clay, subsoil, and topsoil) have been placed and the hay has been disced into the topsoil and subsoil, that the bond be reduced by the amount for those activities. We presume that the DOGM will be inspecting the reclamation activities and will be able to verify by observation that these activities have been completed. We would also propose that the bond amount be reduced by 75% of the cost for ripping, ditch construction and reseeding when those activities as a whole have been completed. We do not believe that it is appropriate to include groundwater monitoring as a bonded item. It is an ongoing activity which is a permit requirement, rather than an activity related to reclamation. Finally, we do not believe that it is appropriate that the calculated bond amount be inflated for five years. The major reclamation expenditures are expected to occur within one year, so the entire bond should not be inflated. Since we are suggesting that a portion of the bond not be released until the reclamation monitoring period is complete, we believe that inflation only be applied to the remaining bond value. If for some reason reclamation does not occur in the time period anticipated, we will provide bond adjustments based on application of the

inflation factor.

I believe that the above discussion addresses the issues raised in your letters of April 29 and August 23. There are several issues which will necessarily remain unresolved until the source of borrow materials have been identified. The source for subsoil should be resolved within the next week or two, but we have less confidence in the source of clay if the BLM managed lands are initially excluded. Accordingly, we cannot commit that our response will be in to the DOGM by early November. We first will need to exhaust the source of privately owned clay sources, and if nothing suitable is available, we will then need to approach the BLM. As you have pointed out, the BLM may require an EIA which could take up to 30 days itself. I do believe that we should be able to make some reasonable assumptions about the clay source and thus the potential bond in that regard. We are available for discussion if you would like to review the above material with us. If it would expedite matters, we will make arrangements to meet with you in Salt Lake City.

Very truly yours,



Larry A. Drew  
Manager - Environmental Affairs

LAD:csm

Enclosure

cc: D. Wayne Hedberg  
Holland Shepherd  
Paul Carter, BLM, Cedar City RA